FEMP Monthly Update

FEDERAL ENERGY MANAGEMENT PROGRAM

NOVEMBER 2003

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The ***FEMP MONTHLY UPDATE*** is prepared expressly for the Department of Energy's Office of Federal Energy Management Programs (FEMP). The purpose of the ***UPDATE*** is to provide FEMP management staff with timely information on topics relevant to the program. This includes the status of pending Federal and state legislation and summaries of public and private sector energy-related activities. The ***FEMP MONTHLY UPDATE*** is prepared for FEMP by Energetics, Incorporated, (202) 479-2748.

DOE BULLETIN BOARD

Short Term Energy Outlook, Energy Information Administration (EIA), November 2003.

The most recent issue of *Outlook* highlights impacts on the world oil markets in 2004. Overall Organization of Oil Exporting Countries (OPEC) oil production, including natural gas, is expected to decline from the 2003 average by about 0.7 million barrels per day in 2004, when considering both the OPEC quota reductions and increased output from Iraq. Non-OPEC production is predicted to rise 1.3 million barrels per day in 2004 above 2003 levels especially in Russia does not limit production.

Heating demand has been low, 11 percent below normal in October, on account of warm weather. The delay in cold weather has allowed natural gas storage to restore itself, and helped the price dip below $4.00 per million Btu in October. Coal-fired generation of electricity has grown 3.3 percent in 2003 relative to 2002 in order to supplement natural gas and nuclear as base load demand fuels.

The gasoline market is undergoing change as New York and Connecticut prepare to follow California's example and replace the fuel additive methyl tertiary butyl ether (MTBE) with ethanol in reformulated gasoline. A greater potential for price spikes is anticipated in New York and Connecticut when MTBE is banned by the end of 2003. Currently, the average motor gasoline price for the United States has dropped from $1.68 per gallon in September to $1.56 in October. The second half of the year has shown a 2.4 percent increase in motor gasoline demand, most likely due to the return of highway travel as a result of an improved economy.

WHAT'S NEW ON THE FEMP WEB SITE

The FEMP Assessment of Load and Energy Reduction Techniques (ALERT) Teams provide quick no-cost and low-cost solutions to saving energy at Federal facilities. Read more at www.eere.energy.gov/femp/techassist/alert.html.

CONGRESSIONAL ACTIVITIES

CONGRESSIONAL SCHEDULE

The House and Senate are scheduled to recess for the Thanksgiving holiday sometime on Wednesday.

STATUS OF PENDING APPROPRIATION BILLS OF INTEREST TO FEMP

Continuing Resolution (CR) H.J. Res. 79, the sixth CR was signed by the President on November 22. The bill extends the operation of Federal programs without FY 2004 appropriations bills through January 31, 2004. Refer to the chart below for the status of 10 of the 13 FY 2004 appropriations bills, which include funding for Federal construction and renovation projects and energy efficiency and renewable energy programs. The Senate is considering their version of an omnibus bill, but it is uncertain whether a bill will be approved before the Senate recesses for Thanksgiving. It is likely that a House-Senate conference committee for the omnibus will occur either in early December, when the House returns from its recess or in early January when the full Congress is back in session.

Bills passed last week by Congress include:

- *Conference Report H. Rpt. 108-357 – FY 2004 Appropriations for Energy and Water Development* (pending the President's signature)
- *P.L. 108-___ – FY 2004 Appropriations for Military Construction* (signed by the President on November 22, pending a bill number)

As a result, Congress is preparing an omnibus bill. Congress has chosen the Agriculture appropriations bill to prepare the omnibus, which may include the following appropriations bills:

- *H.R. 2673/S. 1427 – FY 2004 Appropriations for Agriculture, Rural Development, Food and Drug Administration, and Related Agencies* (pending conference committee report)

DID YOU KNOW?

At the 2003 Federal Energy and Water Management Awards on October 29, sponsored by the Federal Energy Management Program, DOE honored Federal agency employees for reducing energy consumption and making energy efficiency improvements at Federal facilities. A total of

37 individuals and organizations received recognition for saving over $62 million in energy costs in one year.

Award winners included energy managers from the United States Army, Air Force, Marine Corps and Navy; the Departments of Commerce, Energy, Health and Human Services, Interior, Transportation and Veterans Affairs; the General Services Administration; and the United States Postal Service.

DOE Secretary Spencer Abraham commended the winners: "All of the award winners' efforts support President Bush's National Energy Policy, which calls on federal agencies to conserve energy use at government facilities…The President's National Energy Policy also charges the government to enhance conservation efforts, increase energy supplies, accelerate the protection and improvement of the environment and increase the nation's energy security."

Selection criteria for winning the award includes implementation of energy savings performance contracts and utility-financed contracts to obtain private sector funds to reduce Federal energy costs, installing ENERGY STAR® appliances and energy management control system, and purchasing renewable energy.

DOE reports that preliminary FY 2002 data suggests that the Federal Government has reduced energy intensity in buildings by almost 25 percent compared to 1985.

A list of the 2003 winners can be viewed on the FEMP Web site at: www.eere.energy.gov/femp/newsevents.

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- *H.R. 2799/S. 1585 – FY 2004 Appropriations for Commerce, Justice, State, and the Judiciary* (pending Senate approval of *S. 1485*)

- *H.R. 2660/S. 1356 - FY 2004 Appropriations for Labor, Housing and Urban Development, and Education* (pending conference committee report)

- *H.R. 2989/S. 1599 - FY 2004 Appropriations for Transportation, Treasury, and Independent Agencies* (pending conference committee report)

- *H.R. 2861/S. 1584 - FY 2004 Appropriations for Veterans' Affairs, Housing and Urban Development, and Independent Agencies* (pending conference committee approval)

FY 2004 Appropriations

- Refer to Appendix A – Status of FY 2004 Appropriations Bills

The December update of the FEMP Legislative Database will include summaries of the most recent versions of the pending appropriations bills.

COMPREHENSIVE ENERGY LEGISLATION

H.R. 6 – Energy Policy Act of 2003 Last week, progress on the bill came to a halt because a number of Republican and Democratic members voiced objection to selected provisions, primarily language protecting manufacturers of MTBE from liability for groundwater pollution as well as the final tax incentive package of $31.1 billion, which is three times the President's request. Senate Democrats filibustered the bill last week and the Republican Leadership was unable to invoke "cloture" - the limiting of a filibuster debate in order to move forward with a Senate vote. The Republican Leadership unsuccessfully tried to broker agreements with dissenting members; however, further consideration of the bill has been put on hold until Congress returns in January. Refer to Appendix B – *H.R. 6 – Energy Policy Act of 2003.*

STATUS OF PENDING AUTHORIZATION BILLS OF INTEREST TO FEMP

H. R. 1588 – FY 2004 Defense Authorization – On November 24, President Bush signed into law this annual authorization bill, which includes a provision for energy conservation as provided below.

- Sec. 2404. Energy Conservation Projects. Using amounts appropriated, DOE may implement energy conservation projects in the amount of $50 million.

The bill also provides additional funding for Department of Defense construction projects.

Refer to www.eere.energy.gov/femp/resources/initiatives.html – Legislative Databases

HEARINGS OF INTEREST TO FEMP

No new hearings of interest to report.

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FEDERAL AGENCY ACTIVITIES

DEPARTMENT OF ENERGY (DOE)

Energy Information Administration (EIA) To Publish Liquefied Natural Gas Data Next year, EIA will begin publishing data on storage levels for liquified natural gas as a supplement to weekly and monthly storage data reports for natural gas. The weekly natural gas storage report, which is a key indicator of industry supply and demand, is released on Thursday at 10:30 am EST. EIA Chief Guy Caruso said at the North American Natural Gas Summit this month that natural gas indicators are especially useful to buyers and sellers interested "[not] necessarily with the accuracy of the storage report… [but in] volatility." (Source: *Dow Jones*, November 19, 2003)

ASHRAE and DOE Promote Energy Efficiency On October 31, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and DOE signed a Memorandum of Understanding (MOU) to improve energy efficiency and to minimize the environmental impact of energy use. Richard Rooley of ASHRAE said, "Partnering with the Department of Energy will allow us to improve on our efforts in achieving substantial energy savings without sacrificing comfort, air quality or productivity." The MOU included the following goals:

- Promoting and supporting the continuing development of ANSI/ASHRAE/IESNA Standard 90.1, *Energy Efficient Design of New Buildings Except Low Rise Residential Buildings*, ANSI/ASHRAE Standard 62, *Ventilation and Acceptable Indoor Air Quality In Commercial, Institutional, Industrial and High-rise Residential Buildings*, and Standard 62.2, *Ventilation and Acceptable Indoor Air Quality In Low-Rise Residential Buildings*.
- Promoting and supporting implementation of Standard 90.1 through training programs, including self-directed learning, building code interaction, and ASHRAE chapter-oriented training.
- Promoting and supporting the development of guidance for exceeding the minimum efficiencies set by Standard 90.1, and new metrics for building energy efficiency and environmental impact.
- Cooperating in and supporting research into clean and renewable sources of energy, energy efficiency in buildings and equipment, and environmental impact of energy and material use.

- Cooperating in promoting ANSI/ASHRAE standards into the International Organization for Standardization (ISO) standards.
- Working within the building community and related professions to encourage the interoperability of building-related software and integrated solutions among design disciplines, manufacturers, contractors, building owners, and operators, to increase energy efficiency, health, and productivity in new and existing buildings.
- Ensuring sufficient numbers of qualified building design professionals by promoting and encouraging the study of mathematics and science to pre-college students, the study of building design within college curricula, and the pursuit of continuing education by practicing design professionals.
- Providing and supporting technology transfer to building owners and management about the interrelationships between mechanical systems and building operating costs, workplace performance, client satisfaction, and public safety.
- Monitoring the operational, energy, and environmental impacts of new counter-terrorism design features and promoting minimization of those impacts.

For more information, visit www.ashrae.org.

DOE Announces 20-Year Facility Plan In a November 10 speech at the National Press Club, Secretary Spencer Abraham announced the agency's new 20-year plan to construct and operate 28 facilities to support DOE's Office of Science research programs. The plan provides a roadmap for prioritizing the construction or new and the renovation of existing facilities. In making the announcement, the Secretary said, "This plan will be the cornerstone for the future of critical fields of science in America. These facilities will revolutionize science – and society. With this plan our goal is to keep the United States at the scientific forefront." An initial list of 53 facilities was prepared by the Office of Science with input from Departmental laboratories, advisory committees, and the scientific community. For more information on the Secretary's announcement, contact Jeff Sherwood of the DOE Press Office at 202-586-5806.

National Laboratory Activities

High-Performance Commercial Buildings Project Through advances in the High-Performance Commercial Buildings Project (HPCBS) directed by researchers at Lawrence Berkeley National Laboratory (LBNL), building energy consumption in the State of California can achieve long-term energy savings of 70 percent in new construction and 50 percent in major retrofits. Project developers include LBNL's Environmental Energy Technologies Division (EETD) and 13 partner organizations, including Massachusetts Institute of Technology, University of California, and Texas A&M, among other private sector groups. The HPCBS was launched in 2000 by the California Energy Commission's Public Interest Energy Research Program (PIER). The common thread linking all 14 projects in the HPCBS program is information technology. Stephen Selkowitz of EETD said, "There are a lot of individual energy-efficient technologies out in the marketplace, but what's been missing is an integrated set of solutions to help these technologies work together to maximize the energy savings and minimize costs…One of the program's goals was to develop a broad set of tools to design and operate buildings efficiently using information technology."

Technologies to be addressed by this research program include automatic controls for energy-saving devices, building monitoring and diagnostic software, and the Internet. The HPCBS program is developing several building design and operation tools to advance a universal, industry-developed building data model that can be used by all parties involved in a building's life cycle. One of the tools, the Industry Foundation Classes program, assists users in designing software for exchanging different models of building components. Specifically, tools will be used to help different software programs "talk" to one another. Another program, Cal-Arch, allows building owners to compare the energy use in their building with other buildings in the same zip code. Other projects include the creation of computer tools to improve the commissioning process of new buildings. Commissioning is a practice of testing all

building controls and operations as soon as a building is constructed to guarantee that lighting, heating, ventilation, and other systems are operating according to manufacturers specifications. For more information on these and other tools developed by the HPCBS program, contact: Allan Chen at a_chen@lbl.gov.

DEPARTMENT OF THE INTERIOR (DOI)

Bureau of Land Management Holds Forums on Wind Energy in Western Cities The Bureau of Land Management (BLM) sponsored ten public meetings in five western cities this fall to solicit input on developing wind resources on 262 million acres of land managed by the BLM. By next August, BLM will prepare a Programmatic Environmental Impact Statement identifying potential areas of wind development with regard to existing land use. Lee Otteni of BLM said, "We'll be able to say we have the potential to develop [an estimated] number of megawatts on BLM lands." While most wind power is produced on private lands, the BLM has received a growing number of applications from wind developers. Currently, 500 of the nation's 4,700 MW of wind power capacity are generated from projects located on BLM lands. (Source: *Knight Ridder Tribune Business News*, November 10, 2003)

DOI Appoints Renewable Energy Ombudsman On October 31, Secretary of the Interior Gale Norton appointed Brenda Aird as DOI's Renewable Energy Ombudsman. The Ombudsman is responsible for tracking all renewable energy actions. The new position was created as part of a proposed action plan prepared for the White House last year to help increase renewable energy production on Federal lands. Secretary Norton said, "Ms. Aird is a career public servant with a wealth of experience and a solid reputation as a leader and problem solver… She has demonstrated a deep commitment to the importance of collaboration in managing issues and the responsible development of the nation's natural resources." Ms. Aird most recently served as BLM's Group Manager for Solid Minerals.

FEDERAL ENERGY REGULATORY COMMISSION (FERC)

Federal Energy Regulatory Commission Discussion of Comprehensive Energy Bill Despite uncertainty on whether or not *H.R. 6 - Energy Policy Act of 2003* will become law, Federal Energy Regulatory Commission (FERC) Chairman Pat Wood scheduled a conference on December 1 to discuss how the commission should implement electric reliability provisions contained in the energy bill, given strict timelines written in the bill. A public session is also planned for December 15-16 to receive public comments on other energy bill mandates.

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STATE AND LOCAL GOVERNMENT ACTIVITIES

ATLANTA REGION

- *Status of Utility-Related Activities*

Advocates for the Small Wind R&D Initiative in western North Carolina, have identified a site to construct a research and demonstration center that will be comprised of six small wind turbines representing several technologies and manufacturers. Appalachian State University students will develop an installation and maintenance workshop for the public. Analyses of wind potential in the State of North Carolina, conducted by the Tennessee Valley Authority (TVA), revealed that 85,000 property owners in the western part of the state share 800,000 acres with class 2 and higher wind resources. A total of 15,000 property owners own land that contains class 3 and higher wind resources. The initiative will also expand an anemometer loan program and develop a small wind public relations program. North

Carolina residents are eligible to receive a 35 percent tax credit for the installation of all renewable energy technologies. For more information, visit www.ireceusa.org.

BOSTON REGION

No news of interest to report.

CHICAGO REGION

- *General State Activities*

The Ohio Department of Development's Office of Energy Efficiency (OEE) has awarded almost $1 million for distributed energy projects. The grant program was established to help prevent future electric blackouts. A request for proposals was issued this summer and 26 grants were awarded to industrial, commercial, residential, non-profit, government, agriculture and educational entities, based on geographic criteria. Nine of the grants were awarded to small wind projects. Project examples include:

- Montgomery County Board of County Commissioners - $50,000 to install a utility-interactive hybrid renewable energy system consisting of 6 kW of building integrated solar photovoltaics (BIPV) and a 10 kW wind turbine at the Madison Lakes Training and Conference Center.

- City of Dublin - $16,673 to install a 2.4 kW solar photovoltaic (PV) system at Glacier Ridge Metro Park that will be tied to a 10 kW wind turbine to create a hybrid renewable energy system.

- Innovative Farmers of Ohio - $24,356 to install an off-grid hybrid renewable energy system for a greenhouse consisting of 1.2 kW of solar photovoltaics (PV), an 80-gallon solar thermal system, a 1.2 kW wind turbine, and a biomass to bioenergy system.

- Crosscurrents International Institute - $10,338 to install a utility-interactive hybrid renewable energy system including battery backup and consisting of 1.1 kW of solar photovoltaics (PV), and a 1 kW wind turbine.

For more information, contact Maria Smith at (614) 466-6619.

The State of Idaho's Division of Energy will evaluate wind potential on the 345,000 acre Coeur d'Alene reservation. Anemometers will record wind data for at least one year on areas identified in a 2002 DOE report as having the potential for wind power development. Leta Campbell of the Coeur d'Alene tribal council said, "I have been interested in the potential of wind energy development on our reservation for some time…We're pleased that the Tribe and the State of Idaho are taking this important first step and I look forward to the results of this project." The project is part of the Idaho Tribal Wind Power program launched last spring by the Idaho Energy Division. Project developers are also monitoring wind potential on the Shoshone-Bannock lands at Fort Hall and Shoshone-Paiute lands at Duck Valley Indian Reservations. For more information, visit www.idwr.state.id.us.

DENVER REGION

- *General State Activities*

The City Council of Park City, Utah, voted to purchase at least 7.5 percent of its electricity needs in the form of wind energy through Utah Power's Blue Sky Program. Renewable energy will be generated at the Foote Creek Rim wind farm near Evanston, Wyoming. On November 12, Park City Mountain Resort and Deer Valley joined the program. Park City received recognition as the 12th city in the nation to join EPA's Green Power Partner Program. The Mayor of Park City said, "Park City is known worldwide as a premier recreation destination…One reason is the natural beauty that surrounds us. That is why we support Blue Sky renewable wind energy." (Source: *Salt Lake Tribune,* November 10, 2003)

PHILADELPHIA REGION

- *Status of Utility-Related Activities*

The New Jersey Board of Public Utilities (BPU) has allocated $50,000,000 in incentives and guaranteed financing for the Renewable Energy Advanced Power (REAP) Program; more funding may be added in the future. The program will encourage development of the distributive renewable electricity generation (DREG) project in the State of New Jersey. REAP program goals include gaining experience in the construction and operation of DREG projects, overcoming barriers to private investment in renewable energy, and identifying optimum opportunities for long-term development based on the state's DREG resources. In general, the board seeks proposals that support clean energy generation, emerging technologies, and maximum energy production during peak demand periods. Proposals are evaluated based on their ability to minimize transmission and distribution constraints, increase energy security and reliability, and amplify environmental benefits. Winning proposals will receive a financial award of up to 20 percent of total construction costs and guaranteed long-term financing for construction costs. The New Jersey Economic Development Authority will provide long-term, low interest financing for the winning proposals. To view the RFP, visit www.bpu.state.nj.us and click on *Solicitation for: The Renewable Energy Advanced Power Program to Support Distributed Renewable Electricity Generation in New Jersey.*

SEATTLE REGION

- *General State Activities*

On October 1, the State of Oregon increased standards by 10 percent for energy codes for all buildings (except single- and two-family dwellings). The revised codes, which bring Oregon's non-residential energy code to one of the most energy efficient in the nation, require that building energy managers upgrade "more complicated things like controls. A lot of simple equipment widget efficiency upgrades have [already] been made," according to Jeff Harris of the Northwest Energy Efficiency Alliance. The affected controls include demand control ventilation, air temperature resets, daylighting, exterior lighting, and hydronic systems, among others. The revised code includes HVAC requirements for laboratories, computer rooms, and hospitals; reduced lighting power densities; and new minimum efficiency levels for distribution transformers. The code was revised because of pressure for states to adopt energy codes more rigorous than the recent ASHRAE/IESNA standards. Stakeholders in the design community were consulted during the revision process. To view the revised building code, visit www.energy.state.or.us/code/nrsum.htm .

On November 13, former California Governor Gray Davis withdrew the state of emergency signed in January 2001, to address the decline in energy supply and increased prices in the state. The North American Electric Reliability Council (NERC) recently released a report showing a dramatic improvement in the outlook for the western United States. George Bartlett of NERC said, "WECC (Western Electricity Coordinating Council) is showing the greatest increase in projected capacity margin." The NERC report attributes the improved energy outlook to the construction of a large fleet of new power plants. (Source: *Reuters*, November 14, 2003)

On November 5, the California Energy Commission adopted updated building standards for energy efficiency in residential and non-residential construction. The new rules will cut the state's peak energy use by more than 180 megawatts annually. Commissioner Robert Pernell said, "California is already the most energy efficient state in the nation, in large part because of the building standards that have been in effect since 1978…With the adoption of these new rules, we will continue to reduce California's energy demand, cut our future energy bills and make our buildings more comfortable." Utilities, window manufacturers and other representatives support the changes to the building code, which will go into effect in October 2005. Changes in the Title 24 building standards include:

- Installation of "cool roofs" (highly reflective, insulated roofing) on non-residential buildings

- Installation of skylights in "big box" nonresidential buildings with controls to turn-off electric lighting when natural daylight is available
- Requirement that space heating, cooling and ventilation systems become more efficient in both residential and nonresidential buildings
- Includes standards for outside lighting and indoor and outdoor signage for the first time
- Installation of more efficient lighting design in new residential and non-residential construction
- Installation of state-of-the-art fluorescent lighting in all permanent fixtures.
- Installation of new replacement windows with improved glazings in existing residential buildings
- Requirement for ductwork inspection and sealing

To view the entire code, visit www.energy.ca.gov/2005_standards/rulemaking/index.html.

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UTILITIES AND SUPPLIER ACTIVITIES

GENERAL ANNOUNCEMENTS

On October 29, 2003, PA Consulting Group honored winners of the 2003 ReliabiltyOne ™ awards. The awards are presented annually to the most reliable utilities in North America. Criteria for evaluating nominees include quantitative analysis of industry standard reliability statistics and qualitative review of performance. The 2003 winners include:

- Northeast Region -- Consolidated Edison Company of New York
- Mid-Atlantic Region -- Public Service Electric & Gas
- Southeast Region -- Orlando Utilities Commission
- Midwest -- We Energies
- Plains -- Xcel Energy
- West -- Southern California Edison
- Community Utility -- City of Roseville
- National Achievement Award -- Consolidated Edison Company of New York

(Source: *PRNewswire*, October 29, 2003)

ATLANTA REGION

No news of interest to report.

BOSTON REGION

No news of interest to report.

CHICAGO REGION

- ***Restructuring Activities***

Green Mountain Energy and American Municipal Power of Ohio (AMP-Ohio) have constructed a 3.6 MW Green Mountain Energy Wind Farm at the Wood County landfill near the City of Bowling

Green. The first utility-scale wind farm in Ohio, the farm is expected to produce 6,891 MWh of power each year, generating commercial electricity from wind. Marc Gerken of AMP-Ohio said, "This is a tremendous project and represents a milestone in the state of Ohio…AMP-Ohio has dedicated itself to promoting diversification of generation resources on behalf of our member systems, and in doing so we have increased the use of renewable resources. This wind project joins our existing mix of renewable energy from hydro and landfill gas and puts us at the forefront wind generation efforts in Ohio." (Source: *PRNewswire*, November 6, 2003)

DENVER REGION

No news of interest to report.

PHILADELPHIA REGION

No news of interest to report.

SEATTLE REGION

- ***Restructuring Activities***

FPL Energy, will purchase 130 MW of California wind power generation projects from Enron for $80 million. All of the projects under the proposed purchase contract, with the exception of Green Power Partners I LLC, sell 100 percent of their output to Southern California Edison in long-term contract obligations. Jim Robo of FPL Energy said, "The addition of these wind projects will complement our existing California assets and further strengthen our industry leading position in wind." (Source: *Business Wire*, October 29, 2003)

SeaWest WindPower and PPM Energy will develop and construct a 22.44MW Mountain View III wind energy project in Riverside County, California. The 660 kW wind farm, which will begin construction in December 2003, is comprised of 34 Vestas V-47 wind turbine generators. PPM will own and sell the output in a 15 – year power purchase agreement to supply renewable energy to 12,000 households. Christian Engsted of SeaWest said, "The co-development of the Mountain View III project by PPM and SeaWest emphasizes the synergy achieved by combining PPM's aggressive growth strategy in the wind arena with SeaWest's renowned development capabilities." (Source: *Business Wire*, October 29, 2003)

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PRIVATE SECTOR

GENERAL ANNOUNCEMENTS

The first examination for installers of solar photovoltaic (PV) electric systems was held by the North American Board of Certified Energy Practitioners (NABCEP) in late October. Almost 100 candidates took the exam from 14 sites throughout the country. The exam is intended to provide certification to and thus promote confidence in installers of solar equipment. The next exam will be held on April 17, 2004 with applications due in January; visit www.nabcep.org/nabcep/www/pages/pvinstaller/default.asp for details. Training for the exam is available from the accredited organization Institute for Sustainable Power; see www.ispq.org/isptraincert.html for information.

ATLANTA REGION

No news of interest to report.

BOSTON REGION

Harvard University, Cambridge, Massachusetts, has installed a 36-kW solar photovoltaic system on the roof of Shad Hall, the business school's athletic facility. The new system, consisting of 192 solar panels, will provide five percent of the building's annual power. The project was promoted by two Business Administration graduate students who also head Harvard's Sustainable Development Society. Dan Cook, one of the promoters, said "this is a green project that makes practical sense. There doesn't necessarily have to be a trade-off of doing what's good for the environment and doing what's good for business." The project was financed by a $250,000 loan from Harvard Green Campus Initiative's Environmental Loan Fund and a $143,500 grant from the Massachusetts Technology Collaborative. (Source: *Refocus Weekly*, October 29, 2003)

The Yale School of Forestry and Environmental Studies (F&ES) in Connecticut has purchased $3,500 of renewable energy certificates (REC). The RECs will guarantee that 20 percent of the school's electricity will be wind-generated. This purchase supports the "20 percent by 2010" campaign, led by the Hartford-based non-profit, SmartPower Connecticut. Additionally, F&ES is planning for construction of a green building. (Source: *SolarAccess.Com News,* November 6, 2003)

CHICAGO REGION

No news of interest to report.

DENVER REGION

No news of interest to report.

PHILADELPHIA REGION

Whole Foods Market, the world's largest natural and organic foods supermarket, **will obtain 10 percent of it electricity from windpower in its 24 Mid-Atlantic region stores.** Mountaineer Wind Energy Center in West Virginia will generate windpower from its 66 MW facility with 44 wind turbines, producing 176 million kWh per year. Community Energy, Inc., headquartered in Wayne, Pennsylvania, will provide wind-generated electricity to the supermarkets. Additionally, Whole Foods Market will begin in-store customer registration for wind energy in January 2004. (Source: Whole Foods Press Release, November 6, 2003; *Refocus Weekly*, November 12, 2003)

SEATTLE REGION

The non-governmental organization, National Resources Defense Council (NRDC), has opened a highly efficient building in Santa Monica, California. The new building reduces electricity use up to 75 percent by utilizing natural light along with efficient fixtures and appliances, task lighting, dimmable electronic ballasts, occupancy sensors and extra insulation. "Displacement ventilation" is a technique employed where cool air is supplied at floor level, thus displacing hot air, which in turn rises to the ceiling where it is extracted from the building. With a rooftop 7.5-kW grid-connect solar electric array, 20 percent of the building's electricity needs are met. Currently, the U.S. Green Building Council is considering the building for the first award in the United States of a Leadership in Energy and Environmental Design (LEED) Version 2 Platinum green building rating. An online tour of the building is available at www.nrdc.org/cities/building/smoffice/intro.asp. (Source: *EERE Network News,* November 18, 2003)

Kettle Foods has installed a 114-kW photovoltaic system to the roof of their potato chip production plant. The new system provides 25 percent of the company's electricity needs during peak hours, or three to five percent of the annual electricity demand. Peter West, Renewable Energy Director of the Energy Trust of Oregon, said, "This project should dispel the myth that Oregon isn't a good location for solar energy." Surplus power will go to Portland General Electric through a net metering arrangement. The project's payback period, considering a financial incentive from the Energy Trust of Oregon and state

energy tax credits, is anticipated to be seven years. (Source: *SolarAccess.Com News,* November 19, 2003)

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ALTERNATIVE FUELS AND VEHICLES

GENERAL ANNOUNCEMENTS

Ford Motor Company will sell gasoline-electric hybrid version of its sports utility vehicle, Escape, in July 2004. Fuel economy is projected to be approximately 40 miles to the gallon in the city. (Source: *Reuters,* November 6, 2003)

DaimlerChrysler is placing 100 hydrogen fuel cell cars on the road by the end of 2004. The vehicles will include 60 small cars based on the Mercedes Benz A-Class in the United States, Europe and Asia, 30 Citaro buses for use in Europe, and Sprinter vans in the United States. (Source: *Greenwire,* November 17, 2003)

The first dedicated propane school bus, funded by the Department of Energy with support from ProCon, Propane Vehicle Council and the Propane Education & Research Council, has been designed for the General Motors Family-2 Commercial Cutaway Chassis, a cutaway chassis with a truck front end, **allowing compliance with the Americans with Disabilities Act.** The frame is designed to allow for a capacity of more than 50 gallons of propane fuel. (Source: *Clean Cities*, November 2003)

ATLANTA REGION

No news of interest to report.

BOSTON REGION

- ***Infrastructure Activities***

New York State Department of Transportation (NYSERDA) has retrofitted four snowplows and five medium dump trucks for fueling by 80 percent natural gas and 20 percent diesel fuel. NYSERDA has provided a $500,000 grant for the process. The vehicles will be tested in Suffolk County, Long Island. (Source: *Clean Cities*, November 2003)

CHICAGO REGION

- ***Infrastructure Activities***

E85, a blend of 85 percent ethanol and 15 percent gasoline**, pumps have opened in Missouri at the Apple Trail Travel Center in Grain Valley and Break Time in Columbia**. MFA Oil Company also provides E10 at most of its Break Time and Petro-Card fuel stations throughout the state. (Source: National Ethanol Vehicle Coalition press release, October 29, 2003; National Ethanol Vehicle Coalition press release, November 20, 2003)

DENVER REGION

- ***Infrastructure Activities***

As a result of the Environmental Protection Agency's Clean School Bus USA program, 12 school districts in the Denver, Colorado, metropolitan area will begin using B20, a blend of 20 percent biodiesel and 80 percent diesel. This switch is part of a $400,000 award from the Clean School Bus USA

program to the Denver Regional Air Quality Council's "Clean Yellow Fleets for Blue Skies" project, which works to retrofit school buses with clean diesel technology and the use of B20. Neighboring school districts Littleton Public Schools and Jefferson County Public Schools successfully switched to B20 a year ago. (Source: *SolarAccess.Com News*, November 7, 2003)

Blue Sun Biodiesel and Shoco Oil Inc. have opened metropolitan Denver's first retail biodiesel fueling station in Commerce City, Colorado. (Source: *Clean Cities*, November 2003)

The City of Dallas, Texas, is converting 198 Ford Crown Victoria police cruisers to natural gas using funds from the Department of Transportation's Congestion Mitigation and Air Quality program. (Source: *Natural Gas Fuels,* September 2003)

- ***New Products and Services***

Houston, Texas, voters have approved the use of $640 million in bonds to fund 22 miles of light rail construction in the downtown area. This approval is part of a larger regional transit plan that will bring 72 miles of rail service to the city, and expanded the bus service by 50 percent by 2025. The first light rail project is a 7.5 mile line through the city, which is expected to begin operations in January 2004. (Source: *EERE Network News,* November 11, 2003)

A new natural gas trolley system, Capitol Park Trolley, has opened in downtown Baton Rouge, Louisiana, with $1.3 million funding from Congestion Mitigation and Air Quality and $300,000 in matching state funds. (Source: *Clean Cities*, November 2003)

PHILADELPHIA REGION

- ***Infrastructure Activities***

Ride On, the transit fleet serving Montgomery County, Maryland, **is adding 55 compressed natural gas (CNG) buses and building a CNG fueling station in Gaithersburg, Maryland,** that will be equipped to serve the 80 CNG buses in operation by the end of 2004. (Source: *Natural Gas Fuels,* September 2003)

SEATTLE REGION

- ***AFV Fleet Acquisitions***

King County Metropolitan Transit Authority, which includes Seattle, **plans to buy 235 hybrid buses for its transit system and begin use of the new fleet in May 2004.** New Flyer will build the buses with hybrid engines made by General Motors Corporation. (Source: *New York Times*, October 21, 2003)

- ***Infrastructure Activities***

The Regional Transportation Center (RTC) of San Diego, California, has opened a new station with dispensers for a variety of fuels. The $15 million facility was funded by the Department of Energy, California Air Resources Board, City of San Diego, Ford, among others. The station consists of an alternative fuel vehicle (AFV) rental and demonstration center, an education center, and an AFV service center. Fuels available at the center include compressed natural gas, propane, ethanol, biodiesel, electricity, ultra-low-sulfur diesel, and three standard grades of gasoline. (Source: *Natural Gas Fuels,* September 2003)

- ***New Products and Services***

Sound Transit has begun construction on Central Link, a 14-mile light-rail line running between the city center and the Seattle-Tacoma Airport. Sound Transit's first light-rail project, operational in August with a 1.6-mile line in downtown Tacoma, has exceeded ridership expectations. (Source: *EERE Network News,* November 12, 2003)

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MEETINGS, CONFERENCES, AND TRAINING WORKSHOPS

- Refer to Appendix D– New Technologies
- Refer to Appendix E – Calendar of Upcoming Events.

MULTIPLE REGIONS

The Association of Energy Engineers offers online and distance-learning seminars and courses. Two upcoming courses include "Microturbines" on December 4 and "Fuel Cells" on December 8. The first course examines the use of microturbines and its application for self-generation of electricity in the commercial, institutional, and industrial energy sectors. The second course covers the following fuel cell topics: major types, optimal applications, economic assessments, and ongoing developmental programs. **Two approaching seminars include "Strategic Energy Planning" on December 8, and "Performance Contracting 2004 Online Seminar" on January 7.** The first seminar covers strategies for developing and implementing energy management programs. The second seminar provides an understanding for energy efficiency and energy management in performance contracting. The second seminar also covers the role of measurement and verification and the importance of "investment grade" energy audit. For more information on the courses and seminars, see www.aeecenter.org/training or www.aeecenter.org/realtime.

ATLANTA REGION

The Department of Energy, the Environmental Protection Agency, and a number of other organizations are sponsoring the 2003 Southeast Green Power Summit in Atlanta, Georgia on December 3-4. The purpose of the summit is to educate interested parties on methodologies to deploy renewable energy in Atlanta. To learn more, visit www.southeastgreenpower.net.

The Department of Energy's Federal Energy Management Program will sponsor a workshop Introduction to ESPC in Miami, Florida on January 13-14. The two-day workshop for government workers will cover techniques for implementing energy conservation projects through Super Energy Savings Performance Contracting. The workshop will also cover methodologies for issuing delivery orders against indefinite delivery indefinite quantity (IDIQ) contracts and an optional half-day Measurement and Verification course. To register for the workshop, visit www.eere.energy.gov/femp/resources/training/fy2004_super_espc.html.

The Florida Solar Energy Center is sponsoring the Sixth Annual Energy Management Conference in Cocoa, Florida, on February 10-11. The workshop will address practical solutions to energy-related issues and strategies for benefiting the use of efficiency and renewable energy sources in commercial buildings. To learn more, visit www.fsec.ucf.edu/Ed/Contin_Ed/EnergyManagers/index.htm.

BOSTON REGION

The Department of Energy's Federal Energy Management Program, the Association of Energy Engineers, and other organizations are sponsoring GLOBALCON 2004 in Boston, Massachusetts, on March 9-11. The conference will cover topics on heating ventilation and air conditioning in building systems, lighting efficiency, combined heat and power with an emphasis on distributed generation, and plant and facilities management. For information on the agenda and registration, visit www.globalconevent.com/GlobalconBody.htm.

CHICAGO REGION

Focus on Energy and Public Service is sponsoring Practical Energy Management in Green Bay, Wisconsin, on December 11. The workshop will identify challenging, long-term, energy efficiency issues; offer systematic approaches to gain maximum benefits from energy resources; and highlight energy projects with cost savings. For more information, visit www.regweb.com/intro.cfm?UmVnV2ViSUQ9ODQ3OA.

DENVER REGION

The Center for Business Intelligence is sponsoring Gas Outlook 2004 in Houston, Texas, on December 4-5. The conference will examine the supply, demand, market, and price volatility of natural gas. For more information, visit www.cbinet.com/events/PB386/index.html.

The Department of Energy's Federal Energy Management Program will sponsor Advanced ESPC/Financing in Golden, Colorado, on March 23-24. The two-day workshop for government workers will have a financial emphasis and cover three topics: techniques for implementing energy conservation projects through Super Energy Savings Performance Contracting, methodologies for issuing delivery orders against indefinite delivery indefinite quantity (IDIQ) contracts, and an optional half-day Measurement and Verification course. To register for the workshop, visit www.eere.energy.gov/femp/newsevents/cfm/fullevent.cfm?calendarID=151.

PHILADELPHIA REGION

The Department of Energy and West Virginia University are hosting the West Virginia Infrastructure Workshop in Roanoke, West Virginia, on December 11. The workshop will evaluate requirements and identify suggestions for West Virginia's energy infrastructure development. For more information, visit www.wvenergyroadmapworkshops.org/WorkshopInfrastructure.cfm.

SEATTLE REGION

Energy Outfitters Ltd., is hosting Energy Outfitters Tech Conference and RE Expo in Las Vegas, Nevada, on December 4-6. The conference will include renewable energy product displays and demonstrations from manufacturers. A total of six workshops will be offered twice, first on December 4 and again on December 5. Technical training from industry will be offered on December 6. For more information on the conference, see www.solaraccess.com/marketplace/compdetail?compid=623.

The Department of Energy's Federal Energy Management Program is sponsoring Design Strategies for Low-Energy, Sustainable, Secure Buildings in Irwindale, California, on December 10-11. The workshop covers the structure and systems of buildings and examines strategies to save energy and reduce environmental impacts. For more information on the workshop, visit www.eere.energy.gov/femp/resources/training/fy2004_low_energy.html.

INTERNATIONAL

The Solar Energy Society of India is organizing the International Congress on Renewable Energy for Sustainable Development in Bangalore, India, on January 21-23. The conference will concentrate on the latest renewable technologies and the benefits of adopting them in homes and workplaces. For more information, visit www.icore2004.com.

Green Power Marketing is sponsoring the 3rd European Conference on Green Power Marketing in Lausanne, Switzerland, on March 18-19. The conference consists of the following six sessions: international policy trends, international trends in green power markets, green power trading, products

and pricing policy, customer requirements, and the interaction of labeling and certification. For more information, visit www.greenpowermarketing.org/english/index2.html.

The World Council for Renewable Energy and Euro Solar are sponsoring the World Renewable Energy Forum: Global Benefits and Policies in Bonn, Germany, on May 30-31. The forum will

address renewable energy proposals submitted by international non-governmental organizations. For more information, visit www.wcre.org.

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STUDIES, REPORTS, AND ANALYSES

FEDERAL CONSTRUCTION AND RENOVATION

***Embassy Construction: State Department Has Implemented Management Reforms, but Challenges Remain,* General Accounting Office (GAO), November 2003**

In response to a request from the Chairman of the Senate Committee on Foreign Relations, GAO reviewed the Bureau of Overseas Buildings Operations' $21 billion embassy construction program. The program was established by the Department of State in 1999 in response to two bombings at U.S. embassies in Africa. The objective of the program is to provide improved security standards at overseas diplomatic office facilities by building replacement facilities. The author of this report recommends the following: "To sustain support for this program, the State Department must demonstrate that it is exerting effective management, resulting in projects that are on time and within approved budgets. We believe that the State has put in place a number of mechanisms that together represent a positive management approach with the potential to achieve favorable program results. However, it is too early to assess whether these new mechanisms will ensure that State can consistently achieve cost and schedule targets on individual construction projects over the course of the program." To view the report, go to www.gao.gov. Report number is GAO-04-100.

ENERGY AND WATER CONSERVATION

***Investment Grade Energy Audit: Making Smart Energy Choices,* Association of Energy Engineers, October 2003**

The authors provide tools to energy professionals for use in energy audits and for predicting energy use and savings potential in buildings. The authors cover the investment grade audit process in detail, including risk management, measurement and verification, financing issues, report presentation guidelines, and master planning strategies. The study can be found at www.aeecenter.org/books.

SOLAR AND RENEWABLE ENERGY

***Renewable Energy Annual 2002*, DOE Energy Information Administration, November 2003**

This annual report on renewable energy trends found steady growth of 11 percent in renewable energy-related industries and markets for the year 2002. Windpower increased the most among the range of renewable technologies in 2002 by 56 percent. The photovoltaic industry continues to grow with domestic sales exceeding exports. Geothermal heat pump shipments increased, but most units were for small home applications; as a result, the overall tonnage of heating and cooling capacity declined. The renewable fuel most consumed was biomass although non-electric biomass energy consumption continued to decline. This report is available at

www.eia.doe.gov/cneaf/solar.renewables/page/rea2002.html

***Renewables Information 2003*, International Energy Agency, September 2003**

The report contains an analysis of renewables and waste energy supply, electricity production, and installed electricity production and installed electricity generating capacity in Organization for Economic Co-operation and Development (OECD) countries. This report provides comprehensive information on the current market and past trends, as well as support for increasing renewable energy's role in the energy sector. To view the report, visit www.iea.org/stats/files/renew2003.pdf.

***The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Group*, Capital E group, Lawrence Berkley National Laboratory, and Department of Health Services, October 2003**

This study finds investments in green buildings pay back ten-fold. The most definitive cost-benefit analysis of green buildings ever conducted, the authors conclude that the financial benefit of green building design is $50 - $70 per square foot in a Leadership in Energy and Environmental Design (LEED) building. The financial savings came from lower energy, waste and water costs; lower environmental and emission costs; and lower operational and maintenance costs and therefore increased productivity and health. This report is available at www.usgbc.org/Docs/News/News477.pdf.

ALTERNATIVE FUELS AND VEHICLES

***Quarterly Reports on Natural Gas Imports and Exports, Second Quarter 2003,* DOE Office of Fossil Energy, Fall 2003**

The report reveals that U.S. imports of liquefied natural gas (LNG) in the first half of 2003, were more than double the amount imported in the first half of 2002. The U.S. imported 201.5 billion cubic feet of LNG during the first half of 2002. The report attributes the increase in LNG imports to an increased emphasis on finding new ways to meet U.S. natural gas demands. LNG is mostly imported from Algeria, Nigeria, and Trinidad. To view the report, visit www.fe.doe.gov/programs/gasregulation/analyses/analyses.html.

***Hybrid Electric Vehicles: Global Market Assessment, Key Technologies, and Forecasts,* Allied Business Intelligence, Inc.,** *November* **2003**

This report addresses the next step for hybrid electric vehicles now that they are in the mainstream market. The Toyota Prius and Honda Civic Hybrid have the potential for improvements in economy and better performance. This report outlines costs and options for making these improvements. For more information and to acquire the report, visit www.abiresearch.com/reports/HYB.html.

UTILITY-RELATED ISSUES

***Interim Report: Causes of the August 14th Blackout in the United States and Canada,* U.S.-Canada Power System Outage Task Force, November 2003**

The 134-page report reveals that the August 14, 2003, power blackout occurred as a result of three factors that coincided that afternoon: deficiencies in situational awareness by FirstEnergy transmission operators, equipment breakdown, and inadequate diagnostic support from reliability coordinators. The breakdown in power began in the Cleveland-Akron area, served by power company FirstEnergy. The report indicates that FirstEnergy lacked a means of ensuring the functional state of their critical monitoring tools; as a result, they did not have a reliable means of monitoring their system should a problem occur. FirstEnergy also did not properly manage tree trimming in its transmission rights-of-way; this caused the outage of three FirstEnergy high-voltage transmission lines. Lastly, the Midwest System Operator (MISO) lacked real-time data to assess problems in the system, which prevented them from identifying the security violation and from assisting FirstEnergy in correcting the problem. The

Pennsylvania-New Jersey-Maryland Independent System Operator and MISO also lacked joint procedures for coordinating a security limit violation if one were to occur near their territorial boundaries. This caused the power outage to spread further into northeastern states in the U.S. and in Canadian provinces. The report contains no recommendations for improving system standards; recommendations will be provided in a report to be released later this year. Recommendations will include input from public meetings held around the country this fall. To view the report, visit https://reports.energy.gov/814BlackoutReport.pdf.

***Electricity Restructuring: 2003 Blackout Identifies Crisis and Opportunity for the Electricity Sector,* General Accounting Office, November 2003**

The report stated that the August 14, 2003, power blackout, which affected almost 50 million U.S. and Canadian electric customers in eight states and two Canadian provinces, cost billions of dollars in lost productivity, mainly through the shutdown of air and ground transportation, and drinking water and sewage processing systems. GAO recommends that the transition to competitive electric markets can best be accomplished if FERC clearly defines its role in market monitoring, asserts jurisdictional authority, and increases its enforcement authority. The report stated, "In order to monitor current market conditions to ensure fair competition… FERC needs to access market information on wholesale transactions and the operation of electric generating plants, among other things." To view the report, visit www.gao.gov/new.items/d04204.pdf.

[No Name for Report] Cambridge Energy Research Associates (CERA) and Accenture, November 2003

The CERA study indicates that the U.S. electricity market will require at least five more years to overcome the "half market-based, half regulated 'hybrid' structure [that has led] to a supply glut." Report author Jone-Lin Wang said, "After a decade of deregulation, the power industry is, at best, halfway along in the transition from regulation to the marketplace." Report findings also revealed that new power plant construction around the country will result in abundant electricity supplies that will last through 2008. The authors also state that inconsistent Federal and state regulations in the past several years resulted in uneven demand growth, varying supply costs, and volatility. An increase in demand for gas-fired generation, particularly common in newly built plants, may increase the volatility of wholesale power prices. (Source: *Reuters*, November 18, 2003)

MISCELLANEOUS

***2003/2004 Winter Assessment,* North American Electric Reliability Council (NERC), November 14, 2003**

The report states that natural gas resources will adequately meet demand this winter. New generating resources have been added in several regions over the past year, and generating capacity margins are higher than last year. Natural gas transmission systems are also expected to perform reliably this winter. Michehl Gent of NERC said, "We have not identified any significant areas of concern for the upcoming season." The report also recommends that for seamless transmission and distribution of the electricity, reliability coordinators and system operators must communicate and coordinate their actions to maintain electric transmission system reliability. To view the assessment, visit www.nerc.com/pub/sys/all_updl/docs/pubs/winter2003-04.pdf.

***World Energy Investment Outlook: 2003 Insights,* International Energy Agency, November 2003**

This study is a joint endeavor between experts and organizations, including OPEC, the World Bank, major energy companies and financial institutions. The analysis measures by fuel sector and region, global energy investment needs and obstacles through 2030. According to the study, maintaining and expanding present energy supply will require a global investment of $16 trillion over the next three decades. The study predicts that current advanced technologies, including carbon sequestration,

hydrogen, fuel cells and advanced nuclear reactors, can change energy investment patterns and requirements in the long term. In accordance with the study, the rate of deployment of advanced technologies depends on fiscal and regulatory incentives. For more information and to acquire the report, visit http://library.iea.org/dbtw-wpd/bookshop/add.aspx?id=145.

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APPENDIX A
STATUS OF FY 2004 APPROPRIATIONS BILLS

Note: The chart reflects the current status of 10 of the 13 annual appropriations bills and compares the House and Senate versions of each bill, including proposed FY 2004 funding and actual FY 2003 funding (if data was readily available). Refer to Appendix B for bill summaries dealing with energy efficiency and renewable energy and new construction and renovation projects.

	HOUSE					SENATE				
Jurisdiction/ FY 2004 Budget Request	*302(b) Allocations/ Approved Funding Level*	*Bill No.*	*Full Cmte. Mark Up*	*Floor Vote*	*Vote on Conf Rpt.*	*302(b) Allocations/ Approved Funding Level (New)*	*Bill No*	*Full Cmte. Mark Up*	*Floor Vote*	*Vote on Conf. Rpt.*
Agriculture $17,141	**$17,005**	*H.R 2673*	6/25	7/14		**$17,005**	*S. 1427*	7/17	11/6	
Commerce $37,685	**$37,914**	*H.R. 2799*	7/16	7/23		**$37,014**	*S. 1585*	9/4		
Defense $371,698 *P.L. 108-86*	**$368,662**	*H.R. 2658*	6/26	7/8	9/24	**$368,662**	*S. 1382*	7/9	7/17	9/25
Energy and Water Development $26,946 *P.L. 108-___*	**$27,080**	*H.R. 2754*	7/15	7/18	11/18	**$27,313**	*S. 1424*	7/17	9/16	11/18
Homeland Security $27,481 *P.L. 108-90*	**$28,521**	*H.R. 2555*	6/17	6/24	9/24	**$28,521**	*H.R. 2555*	7/10	7/24	9/24
Interior $19,552 *P.L. 108-108*	**$19,627**	*H.R. 2691*	6/25	7/17	10/30	**$19,627**	*S. 1391*	7/10	9/23	11/3
Labor / HHS $137,990	**$138,046**	*H.R. 2660*	6/25	7/10		**$137,601**	*S. 1356*	6/26	9/10	
Military Construction $9,237 *P.L. 108-___*	**$9,196**	*H.R. 2559*	6/17	6/26	11/5	**$9,196**	*S. 1357*	6/26	7/11	11/12
Transportation and Treasury $27,802	**$27,502**	*H.R. 2989*	7/24	9/9		**$27,502**	*S. 1589*	9/4	10/23	
VA/HUD $89,434	**$90,034**	*H.R. 2861*	7/21	7/25		**$90,034**	*S. 1584*	9/4	11/18	

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APPENDIX B
H.R. 6 – ENERGY POLICY ACT OF 2003

H.R. 6

TITLE	*Energy Policy Act of 2003*
DATE INTRODUCED	3/28/03
SPONSOR	Joe Barton (R/TX)
STATUS	Passed by House on 4/10/03 Received in Senate on 4/29/03 Approved by the Conference Committee on November 17 Conference Report approved by the House on November 18 Conference Report pending Senate vote

TITLE I - ENERGY EFFICIENCY, SUBTITLE A – FEDERAL PROGRAMS

SEC. 101 ENERGY AND WATER SAVINGS MEASURES IN CONGRESSIONAL BUILDINGS

Congressional Buildings Directs Architect of the Capitol to develop, update, and implement cost-effective, energy conservation and management plan for all Congressional facilities to meet energy performance requirements for Federal buildings.

Plan To be submitted to Congress within 180 days of enactment of Act.

Requirements Plan to include (1) description of life cycle cost analysis (LCC) for proposed energy efficiency projects, (2) schedule of energy surveys of all buildings every 5 years to determine cost and payback period of measures, (3) installation strategy for LCC measures, (4) results of installation submetering study, (5) workplace information packages for Congressional members.

Report Submit annual report to Congress on energy management and conservation programs.

Study Directs Architect to commission evaluation of Capitol Complex energy infrastructure, building on Master Plan Study completed in July 2000.

Authorizations Authorizes $2 million for each fiscal years 2004 through 2008 to conduct evaluation.

SEC.102. ENERGY MANAGEMENT REQUIREMENTS – AMENDS NECPA, SEC. 543

Goals Strikes "its Federal buildings so that…." and inserts "the Federal buildings of the agency (including each industrial or laboratory facility) so that the energy consumption per gross square foot of the Federal buildings of the agency in fiscal years 2004 through 2013 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in fiscal year by 2001, by the percentage specified" below:

- 2004 – 2 %
- 2005 – 4%
- 2006 – 6%
- 2007 – 8%
- 2008 – 10%
- 2009 – 12%
- 2010 – 14%
- 2011 – 16%
- 2012 – 18%
- 2013 – 20%

Reporting Baseline Supersedes all previous goals, baselines, and reporting requirements.

Review and Revision of Energy Performance Requirement: Directs DOE to review implementation of energy performance requirement results and submit requirement recommendations for FY 2014 through 2023 to Congress by 12/31/12.

Exclusions Agencies may exclude from performance requirement for a fiscal year for any Federal building or collection of Federal buildings
if agency head determines (1) compliance would be impracticable; (2) agency has completed and submitted all required energy management reports; (3) agency has achieved compliance with Act, *EPCA*, executive orders, and other Federal law; and (4) agency

has implemented all practicable, LLC-effective projects with respect to buildings to be excluded. (Guidance on "impracticability" provided).

Guidelines Within 180 days of enactment, directs DOE to issue guidelines to establish criteria for exclusion.

Retention of Energy and Water Savings Agencies may retain any funds appropriated to agency for energy, water, or wastewater treatment expenditures, at buildings subject to requirements that are not made because of energy or water. Except as provided by law, funds may be used only for energy efficiency, water conservation, or unconventional and renewable energy resources projects.

Conforming Amendment Strikes "20 percent reduction goal established under section 543(a)' and inserting "each of the energy reduction goals established under section 543(a).

SEC.103. ENERGY USE MEASUREMENT AND ACCOUNTABILITY – AMENDS NECPA, SEC. 543

Metering and Energy Use By 10/1/10, all Federal buildings, in accordance with DOE-established guidelines, shall be metered or submetered to maximum extent practicable using advanced meters or advanced metering devices that provide data at least daily and measure at least hourly consumption of electricity in Federal buildings. Data to be incorporated into existing Federal energy tracking system and made available to Federal facility energy mangers.

Guidelines Within 180 days of enactment, DOE, in consultation with DOD; GSA; national laboratories; universities, Federal facility managers, and representatives from the metering, utility, energy services, energy efficiency industries, and energy efficiency advocacy organizations shall establish guidelines for agencies.

Guidelines shall take into consideration (1) cost of metering and submetering and resulting reduced cost of O&M; (2) extent to which metering and submetering are expected to result in increased potential for energy management, energy savings and efficiency improvements, and cost and energy savings due to utility contract aggregations; and (3) DOD M&V protocols.

Include recommendations regarding amount of funds and number of necessary trained personnel to collect and use metering information to track and reduce energy use.

Within 1 year, priorities to be established for types and locations of buildings to be metered and submetered based on cost-effectiveness and a schedule of one or more dates.

Establish exclusions from requirements based on de minimis quantity of energy use in a Federal building, industrial process, or structure.

Plan Within 6 months of issuance of guidelines, each agency shall submit plan to DOE describing how agency will implement requirements and will include: (1) how agency will designate personnel primarily responsible for achieving requirements and (2) demonstration of findings that advanced meters or devices are not practicable.

SEC. 104. PROCUREMENT OF ENERGY EFFICIENCY PRODUCTS

Definitions – Defines (1) EnergyStar®, (2) EnergyStar® Program, (3) Executive Agency, and (4) FEMP-Designated Product.

Requirement To meet requirements, agency shall procure EnergyStar® or FEMP-designated product; provision provides exceptions based on cost-effectiveness or availability.

Procurement of Energy Efficient Products To meet requirements, head of executive agencies shall procure EnergyStar® or FEMP designated product.

Exceptions Provides guidance for exceptions for EnergyStar® or FEMP designated product.

Procurement Planning Agencies shall incorporate into specifications for all procurements involving energy consuming products and systems, including guide specifications, project specifications, and construction, renovation, and services contracts that include provision of energy-consuming products and systems and into factors for evaluation of offers received for procurement, criteria for energy efficiency consistent with criteria used for rating EnergyStar® and FEMP-designated products.

Listing of Energy Efficient Products in Federal Catalogs EnergyStar® and FEMP-designated products shall be clearly identified and prominently displayed in any GSA or DLA inventory or listing of products. Provides specific guidelines to GSA and DLA for supplying such products.

Designation of Electric Motors In the case of electric motors of 1 to 500 hp, agencies shall select only premium efficient motors meeting standard designated by DOE; standard to be designated by DOE within 120 after enactment. DOE to consider recommendation of associated electric motor manufacturers and energy efficiency groups.

Federal agencies are encouraged to take actions to maximize efficiency of air conditioning an refrigeration equipment, including appropriate cleaning and maintenance, use of any system treatment or additive that reduces electricity consumed. Treatment or additive must be (1) determined by DOE to be effective in increasing efficiency of equipment without adverse impact on performance or equipment useful life, (2) determined by EPA to be environmentally safe, and (3) shown to increase seasonal energy efficiency ratio or energy efficiency ratio when tested by NIST according to DOE test procedures. Test results are to be published in the *Federal Register* for public comment.

Regulations Within 180 days of enactment of Act, DOE shall issue guidelines to carry out this section.

SEC.105. ENERGY SAVINGS PERFORMANCE CONTRACTS

Permanent Extension Repeals section 801(c) of *NECPA*.

Payment of Costs Inserts "water or wastewater treatment" after "payment of energy."

Energy Savings Defines energy savings as reduction in cost of energy, water, or wastewater treatment from base cost established through methodology set forth in contract, used in existing Federally owned building/facility as result of (1) lease or purchase of equipment, improvements, altered operation and maintenance, or technical services; (2) increased efficient use of existing energy sources by cogeneration or heat recovery; (3) increased efficient use of existing water sources in either interior or exterior applications.

Energy Savings Contract Defines energy saving contract and ESPC as contracts for (1) performance of services for design, acquisition, installation, testing, and where appropriate, O&M and repair of identified energy or water conservation measures at 1 or more locations. Such contracts, shall, with respect of an agency facility that is a public building be in compliance with the prospectus requirements and procedures of section 3307 of title 40, USC.

Energy or Water Conservation Measure Defines (1) energy conservation measure as provided in section 551 and (2) water conservation measures that improves water efficiency, is life cycle cost effective, and involves water conservation, water recycling or reuse, more efficient treatment of wastewater or stormwater, improvements in O&M efficiencies, retrofit activities, or other related activities, not at a Federal hydroelectric facility.

Review (1) Within 180 days of enactment, DOE shall complete review of ESPC program to identify statutory, regulatory, and administrative obstacles preventing Federal agencies from fully utilizing program. (2) Review to identify all areas for increasing program flexibility and effectiveness, including requirements for audit and verification, accounting for energy use in determining savings, contracting (including identification of additional qualified contractors) and energy services covered. (3) DOE to report findings to Congress. (4) DOE to implement identified administrative and regulatory changes to increase program flexibility and effectiveness to extent such changes are consistent with statutory authority.

SEC.106. ESPC PILOT PROGRAM FOR NONBUILDING APPLICATIONS

In General Authorizes DOD and other interested Federal agencies to enter into up to 10 ESPCs using procedures, established under subsection (b), based on the procedures under title VII of *NECPA* for achieving energy or water savings, secondary savings, and benefits incidental to those purposes in nonbuilding applications, provided payments made by Federal Government shall not exceed $200 million for all contracts combined.

Procedures DOE, in consultation with GSA and DOD, shall establish procedures based on procedures under title VIII of *NECPA* for implementing this section.

Definition Defines "nonbuilding application" as (1) any class of vehicles, devices, or equipment transportable under their own power by land, sea, or air that consume energy from any fuel source for purpose of transportability or to maintain controlled environment within

such vehicle, device, or equipment or (2) any Federally owned equipment used to generate electricity or transport water.

Definition Defines "secondary savings" as additional energy or cost savings as a direct consequence of energy or water savings resulting from financing and implementation of an ESPC, including, but not limited to energy or cost savings resulting from reduction in need for fuel delivery and logistical support or increased efficiency in production of electricity.

Report Within 3 years of enactment, DOE shall report to Congress on progress and results of funded projects; report to include project descriptions, energy and water and cost savings, secondary savings, and other benefits and provide recommendation on whether pilot program should be extended, expanded, or permanently authorized as part of program authorized by *NECPA*.

SEC. 107. VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY INTENSITY

Voluntary Agreements Authorizes DOE to enter into voluntary agreements with 1 or more persons in industrial sectors that consume significant amount of primary energy per unit of physical output to reduce energy intensity of their production activities by a significant amount relative to improvements in each sector in recent years.

Recognition DOE, in cooperation with EPA and other Federal agencies shall recognize and publicize achievements of participants in voluntary agreements.

SEC. 108. ADVANCED BUILDING EFFICIENCY TESTBED

Establishment (1) DOE, in consultation with GSA, shall establish testbed program for development, testing, and demonstration of advanced engineering systems, components, and materials to enable innovations in building technologies. (2) Program to evaluate efficiency concepts for government and industry buildings and demonstrate ability of next generation buildings to support individual and organizational productivity and health (including indoor air quality), flexibility, and technological change to improve environmental sustainability. (3) Program shall complement and not duplicate existing national programs.

Participants Program to be led by university with ability to combine expertise from numerous academic fields (including intelligent workplaces and advanced building systems and engineering, etc.) and shall partner with other universities and entities with established programs and capability to advance innovative building efficiency technologies.

Appropriations Authorizes DOE the amount of $6 million for each fiscal years between 2004 - 2006 to carry out program. For any fiscal year, funds shall provide 1/3 of total amount to lead university and remaining 2/3 of funds to other participants.

SEC. 109. FEDERAL BUILDING PERFORMANCE STANDARDS AMENDS NECPA, SECTION 305(A)

Amendment Strikes "CABO Model Energy Code, 1992" and inserts "2002 International Energy Conservation Code" (IECC).

Revised Federal Building Energy Efficiency Performance Standards Within 1 year of enactment, DOE shall establish, by rule, revised Federal building energy efficiency performance standards that, if LCC-effective for new Federal buildings (1) buildings are designed to achieve energy consumption levels at least 30% below most recent version of ASHRAE Standard or IECC, as appropriate; and (2) sustainable design principles are applied to siting, design, and construction of all new and replacement buildings.

Where water is used to achieve energy efficiency, water conservation technologies shall be applied to extent they are LCC-effective.

Additional Revisions Within 1 year of approval of amendments to ASHRAE Standard 2000 or IECC, as appropriate, DOE shall determine, based on cost effectiveness of amendment requirements, whether revised standards should be updated to reflect amendments.

Statement on Compliance of New Buildings In annual budget requests and reports, Federal agencies shall (1) list all new Federal buildings owned, operated, or controlled by the Federal agency and (2) provide statement concerning whether buildings meet or exceed revised standards.

SEC. 110. INCREASED USE OF RECOVERED MINERAL COMPONENT IN FEDERALLY FUNDED PROJECTS INVOLVING PROCUREMENT OF CEMENT OR CONCRETE

Amendment Amends Subtitle F of *Solid Waste Disposal Act* and provides agency guidance for compliance.

Other Sections of Interest

SUBTITLE C – ENERGY EFFICIENT PRODUCTS

SEC. 131. ENERGY STAR® PROGRAM

Establishes Program At DOE and EPA, voluntary program to identify and promote energy-efficient products and buildings in order to reduce energy use, improve energy security, and reduce pollution through voluntary labeling of or other forms of communication about products and buildings meeting highest energy efficiency standards. Responsibilities to be divided between DOE and EPA consistent with terms of agreements between the two agencies. EPA and DOE shall:

(1) promote EnergyStar® compliant technologies as preferred technologies in marketplace for achieving energy efficiency and to reduce pollution;

(2) work to enhance public awareness of label, including special outreach to small businesses;

(3) preserve integrity of label;

(4) solicit comments from interested parties prior to establishing or revising EnergyStar® product category, specifications, or criteria (or effective dates for any of the foregoing)'

(5) upon adoption of new or revised product category, specifications, or criteria, provide reasonable notice to interested parties of any changes (including effective dates) with explanation of changes, and, where appropriate, responses to comments submitted by interested parties;

(6) provide appropriate lead time (which shall be 9 months, unless EPA or DOE determines otherwise) prior to effective date for a new or significant revision to product category, specification, or criterion, taking into account timing requirements of manufacturing, product marketing, and distribution process for specific product addressed.

SEC. 133. ENERGY CONSERVATION STANDARDS FOR ADDITIONAL PRODUCTS

New Standards – Standby Mode Electric Energy Consumption – Amends *EPCA* to include this section:

Initial Rulemaking Directs DOE, within 18 months of enactment, to prescribe by notice and comment, definitions and test procedures for power use of battery chargers and external power supplies. DOE shall consider, among other factors, existing definitions and test procedures used for measuring energy consumption in standby mode and other modes and assess current and projected future market for battery chargers and external power supplies. Assessment shall include estimates of significance of potential energy savings from technical improvements to the products and suggested product classes for standards. Prior to the end of this time period, DOE shall hold a scoping workshop to discuss and receive comments on plans for developing energy conservation standards for energy use for these products.

Final Rule Within 3 years, DOE to issue final rule determining whether energy conservation standards shall be issued for these products. For each product class, standards shall be set at lowest level of energy use that (1) meets criteria and procedures and (2) will result in significant overall annual energy savings, considering both standby mode and other operating modes.

Review of Standby Energy Use in Covered Products In determining whether test procedures and energy conservation standards should be revised, DOE shall consider, for covered products that are major sources of standby mode energy consumption, whether to incorporate standby mode into test procedures and energy conservation standards, taking into account, among other relevant factors, standby mode power consumption compared to overall product energy consumption.

Rulemaking DOE shall not propose a standard unless DOE has issued applicable test procedures for each product.

Effective Date Any standard issued shall be applicable to products manufactured or imported 3 years after date of issuance.

Voluntary Programs DOE and EPA shall collaborate and develop programs, including programs related to EnergyStar® and other voluntary industry agreements or codes of conduct designed to reduce standby mode energy use.

TITLE II – RENEWABLE ENERGY- SUBTITLE A – GENERAL PROVISIONS

SEC. 203. FEDERAL PURCHASE REQUIREMENT

Requirement The President, acting through DOE, shall seek to ensure that, to extent economically feasible and technically practicable, of total amount of electric energy Federal Government consumers during any fiscal year, the following amounts shall be renewable energy:

(1) Not less than 3% in FY 2005-FY 2007

(2) Not less than 5% in FY 2008-FY 2010

(3) Not less than 7.5% in FY 2011 and each fiscal year thereafter

Definitions

(1) Biomass means any solid, non hazardous cellulosic material derived from forest-related resources, solid wood waste materials, agriculture wastes, or a plant grown exclusively as a fuel for the production of electricity.

(2) Renewable energy means electric energy generated from solar, wind, biomass, landfill gas, geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric projects.

Calculation For purposes of determining compliance with requirement, amount of renewable energy shall be doubled if renewable energy is:

(1) Produced and used on-site at a Federal facility.

(2) Produced on Federal lands and used at a Federal facility, or

(3) Produced on Indian land and used at a Federal facility

Report By 4/15/05, and every 2 years thereafter, DOE shall provide a report to Congress on Federal Government's progress in meeting the goals established by this section.

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APPENDIX C
NEW LEGISLATION OF INTEREST TO FEMP

SENATE

Number	Short title	Date	Sponsor	Status
H. R. 3506	No Short Title	11/18/03	Robert Filner (D/CA)	Referred to Committee on Energy and Commerce

SENATE

No news of interest to report.

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ATTACHMENT – NEW TECHNOLOGIES

For informational purposes only. Listing does not imply endorsement.

TECHNOLOGY	MANUFACTURER	MANUFACTURERS CLAIM	CONTACT
		HVAC	
Q-Tec QA Packaged Air Conditioner	Bard Manufacturing Co.	Meets variety of engineering specifications in niche applications for indoor structure conditioning e.g. telecommunication shelters and office spaces	www.bardhvac.com
Portable Air Conditioner	American Power Conversion	Provides up to 4KW of air conditioning for localized cooling in small areas with inexpensive installation	www.apcc.com
Victory VSPH Sealed-Combustion Boiler	Slant/Fin	Gas boiler with unique venting features reduce installation time	www.baseboard.com
Duro-Last® Cool Zone™ Roofing System	Duro-Last Roofing Inc.	Reflects up to 87% of the sun's energy delivering real time cost savings	www.duro-last.com
		LIGHTING	
Online Sustainable Lighting Index™ Calculator	Royal Philips Electronics'	Online tool calculates mercury content/lumen hour ratio of lamp operations and provides lamp alternatives to reduce the environmental impact in buildings. Rates end-users' lamp performance against standards set forth by the U.S. Green Building Council's Leadership in Energy and Environmental Design for Existing Buildings (LEED-EB) program.	www.lighting.philips.com
Solera® Translucent Glazing	Advanced Glazing Ltd.	Glass converts glare to fill interior spaces with diffused light and thermal insulation.	www.advancedglazings.com
		ENERGY MANAGEMENT TOOLS	
Energy Translator™	E-MON, L.P.	Hardware interface translates energy data from a variety of sources into a single output format compatible with industry-standard energy management and distributed generation systems. Enables energy data to be uploaded to the Internet as an on-site Web server with firewall protection.	www.emon.com
SunViewer.net™	Heliotronics	A renewable energy database receives data from national renewable energy sites and generates the data from the Internet.	www.heliotronics.com

TECHNOLOGY	MANUFACTURER	MANUFACTURERS CLAIM	CONTACT
RTU Energy Management	Power Measurement	RTU (remote terminal unit) collects, scales, and logs readings from a number of connected meters or transducers and delivers information to one or more head-end systems.	www.pwrm.com
		MISCELLANEOUS	
CleanSource UPS System	Active Power	With standby power generator provides 96-97% efficiency and reliable, continuous power system in long lasting-power outages	www.activepower.com
Sageon™ Power System	C&D Technologies Inc.	Delivers up to 2600 and 1300 Amps of power for 24 and 48- volt systems respectively in telecommunication applications. Designed to monitor and manage power for continuous system uptime and to meet future power requirements providing cost and time savings.	www.cdtechno.com
Battery Diagnostic System	Alber	Monitors critical battery parameters and tracks increases in internal cell resistances, to predict if the battery system will perform during a power outage.	www.alber.com

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ATTACHMENT
MEETINGS, CONFERENCES, AND OTHER EVENTS

NOTE: New events are highlighted in blue.
DOE-sponsored events are highlighted in green.

FEMP Training Calendar: www.eere.energy.gov/femp/newsevents/training.shtml

GENERAL ANNOUNCEMENTS

DATE	EVENT	SPONSOR
December 4, 2003	**Distributed Generation Online Short Course: Course 1: Microturbines**	**Association of Energy Engineers**
December 8, 2003	**Distributed Generation Online Short Course: Course 2: Fuel Cells**	**Association of Energy Engineers**
December 8, 2003	**Strategic Energy Planning**	**Association of Energy Engineers**

ATLANTA REGION

DATE	EVENT	SPONSOR
December 3-4, 2003	**2003 Southeast Green Power Summit Atlanta, GA**	**Department of Energy**
December 3-4, 2003	**Fundamentals of Energy Management Miami, FL**	**Department of Energy**
February 3, 2004	Green Power Options Ft. Lauderdale, FL	Green Power magazine
January 13-14, 2004	**Introduction to ESPC Miami, FL**	**FEMP**
February 10-11, 2004	**Sixth Annual Energy Management Workshop Cocoa, FL**	**Florida Solar Energy Center**
March 18-19, 2004	**GREENPRINTS Conference & Tradeshow Atlanta, GA**	**Department of Energy**
March 23-24, 2004	**Advanced ESPC/Financing Golden, CO**	**FEMP**

BOSTON REGION

DATE	EVENT	SPONSOR
March 9-10, 2003	**GLOBALCON 2004 Boston, MA**	**FEMP**

DATE	EVENT	SPONSOR
March 10-13, 2003	NESEA Building Energy Conference Boston, MA	Northeast Sustainable Energy Association and Massachusetts Technology Collaborative

CHICAGO REGION

DATE	EVENT	SPONSOR
December 11, 2003	**Practical Energy Management Green Bay, WI**	**Focus on Energy and Public Service**

DENVER REGION

DATE	EVENT	SPONSOR
December 4-5, 2003	**Gas Outlook 2004 Houston, TX**	**Center for Business Intelligence**
December 11-12, 2003	Business Energy Solutions Expo 2003 New Orleans, LA	Association of American Engineers
March 23-24, 2004	**Advanced ESPC/Financing Golden, CO**	**FEMP**

PHILADELPHIA REGION

DATE	EVENT	SPONSOR
December 3-5, 2003	2003 Hydrogen Production and Storage Forum: Assessing the "Here-and-Now" Technical, Strategic and Commercial Opportunities for Generating and Storing Hydrogen Fuel Washington, DC	Intertech Corporation
December 11, 2003	**West Virginia Energy Infrastructure Workshop Roanoke, WV**	**Department of Energy**

SEATTLE REGION

DATE	EVENT	SPONSOR
December 4-6, 2003	**Energy Outfitters Tech Conference & RE Expo Las Vegas, NV**	**Energy Outfitters, Ltd.**
December 9-11, 2003	Industrial Water Conference 2003 Las Vegas, NV	Industrial Water World
December 10-11, 2003	**Design Strategies for Low-Energy, Sustainable, Secure Buildings Irwindale, CA**	**FEMP**

DATE	EVENT	SPONSOR
January 26-28, 2004	Distributed Energy Resources Sustaining the Momentum: Delivering the Benefits San Diego, CA	CADER
March 1-3, 2003	POWER-GEN Renewable Energy Conference Las Vegas, NV	American Council on Renewable Energy

INTERNATIONAL

DATE	EVENT	SPONSOR
November 30 - December 5, 2003	**RIO 3 – World Climate and Energy Event Rio de Janeiro, Brazil**	**Latin American Renewable Energy**
January 21-23, 2003	**International Congress on Renewable Energy for Sustainable Development Bangalore, India**	**Solar Energy Society of India**
March 18-19, 2004	**3rd European Conference on Green Power Marketing Lausanne, Switzerland**	**Green Power Marketing**
May 30-31, 2004	**World Renewable Energy Forum 2004: Global Benefits and Policies Bonn, Germany**	**World Council for Renewable Energy and EuroSolar**

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